CLAIMS

What is claimed is:

1. A conveyor system for transporting articles, in particular for transporting containers holding baggage pieces, comprising:

   at least two sequentially arranged endless conveyor belts to define an upstream conveyor belt and a downstream conveyor belt for transport of articles in a transport direction from the upstream conveyor belt to the downstream conveyor belt;

   a drive unit having a first drive motor operatively connected to the upstream conveyor belt and a second drive motor operatively connected to the downstream conveyor belt; and

   a control unit for regulating a rotation speed of the first drive motor in dependence on a weight determination commensurate with a presence or absence of articles positioned on the upstream conveyor belt, and for regulating a rotation speed of the second drive motor in dependence on a weight determination commensurate with a presence or absence of articles positioned on the downstream conveyor belt.

2. The conveyor system of claim 1, wherein the weight determination is based on a quantity of articles located on the conveyor belts.

3. The conveyor system of claim 1, wherein the weight determination is based on a sum of individual weights of the articles.

4. The conveyor system of claim 2, wherein the weight determination is implemented by multiplying the quantity of the articles with an average weight of the articles.

5. The conveyor system of claim 1, wherein the control unit compensates a decrease in rotation speed in response to an increase in weight of the articles on the conveyor belts through an increase of a desired rotation speed of the associated drive motor.

6. The conveyor system of claim 5, and further comprising a frequency converter receiving an output signal from the control unit and controlling the drive motor, wherein the desired rotation speed is adjusted by changing a frequency of the frequency converter and/or a supply voltage of the drive motor.

7. The conveyor system of claim 5, wherein the drive motor is an unregulated asynchronous motor.

8. The conveyor system of claim 1, wherein the conveyor belts form a storage unit for the articles.

9. A method for controlling a conveyor system for transporting articles, in particular for transporting a container holding baggage pieces, with at least two sequentially arranged endless conveyor belts to define an upstream conveyor belt and a downstream conveyor belt for transport of articles in a transport direction from the upstream conveyor belt to the downstream conveyor belt, comprising the steps of:

driving each conveyor belt with a drive motor having a rotation speed that depends on a load torque,

determining a weight of the articles located on the conveyor belts, and

controlling a rotation speed of the drive motors in dependence on the weight of articles positioned on the conveyor belts.

10. The method of claim 9, wherein the weight of the articles is determined based on a quantity of the articles located on the conveyor belts.

11. The method of claim 9, wherein the weight of the articles is determined from a sum of individual weights of the articles.

12. The method of claim 10, wherein the weight of the articles is determined by multiplying the quantity of the articles with an average weight of the articles.

13. The method of claim 9, wherein the controlling step includes increasing a desired rotation speed of a drive motor when the weight of the articles located on the conveyor belt associated with the drive motor increases, so as to compensate for a decrease in an actual rotation speed in response to an increase in weight on the conveyor belts.

14. The method of claim 13, wherein the controlling step includes adjusting a frequency and/or a supply voltage of the drive motor.

15. The method of claim 9, wherein the drive motor is an unregulated asynchronous motor.

16. The method of claim 9, and further comprising the step of transferring the articles transported on the downstream conveyor belt back to the upstream conveyor belt so as to form a storage unit for the articles.